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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JOHN W. FORSBERG, MARK E. SCHOMMER,  
DAVID P. OLSON, WILLIAM C. PHILIPS, ALEX C. TOY,  
and CHARLES R. LEWIS, JR.

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Appeal 2010-005712  
Application 10/693,005  
Technology Center 3700

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Before STEVEN D.A. MCCARTHY, LYNNE H. BROWNE, and  
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the decision of the Examiner rejecting claims 1-12, 14-21, and 32. Claims 13 and 22-31 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

The claims are directed to a medical device programmer with an infrared communication interface. Claim 1, reproduced below, is representative of the claimed subject matter:

1. A medical device programmer comprising:

an infrared interface to receive changes to software executed by a processor within the programmer during an infrared communication session; and

a controller to activate the infrared interface to seek an infrared communication session for a finite period of time in response to power-up of the programmer, and deactivate the infrared interface after the finite period of time if the infrared communication session is not established.

#### REFERENCES

The Examiner relies upon the following evidence:

Stanton	US 6,249,703 B1	Jun. 19, 2001
Meadows	US 6,516,227 B1	Feb. 4, 2003
Whitehurst	US 2003/0229383 A1	Dec. 11, 2003

#### REJECTIONS

Appellants seek our review of the following rejections:

1. Claims 1-12, 14, 15, 17-21, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Meadows and Whitehurst. Ans. 3-9.
2. Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Meadows, Whitehurst, and Stanton. Ans. 9-10.

OPINION

*Obviousness of claims*

*1-12, 14, 15, 17-21, and 32 over Meadows and Whitehurst*

Claim 1 is the only independent claim. Appellants argue for reversal of the Examiner's rejection under § 103(a) of claim 1 and its dependent claims 3-5, 10, 18-21, and 32 over Meadows and Whitehurst as a group. App. Br. 6-16. We designate claim 1 as representative of this group of claims. 37 C.F.R. § 41.37(c)(1)(vii)(2008).

Appellants argue separately for reversing the rejection of dependent claims in four groups as follows:

- claim 2 individually (App. Br. 16-17<sup>1</sup>);
- claims 6-9 as a group based on claim 6 (*id.* at 17-19);
- claims 11, 12, 14, and 17 as a group based on claim 11 (*id.* at 19-20);  
and
- claim 15 individually (*id.* at 20-21).

We address each of these five groups of claims separately below.

1. Claims 1, 3-5, 10, 18-21, and 32
  - a. The Examiner's Rejection

The Examiner finds that Meadows describes all limitations of claim 1 except that Meadows does not “expressly disclose that the seeking period is finite and that the infrared interface is deactivated after a finite period of time if the communication session is not established.” Ans. 3.<sup>2</sup> To meet this limitation, the Examiner finds that Whitehurst describes a “sleep-listen”

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<sup>1</sup> All references to “App. Br.” in this opinion will be to the Appeal Brief dated December 8, 2008.

<sup>2</sup> All references to “Ans.” in this opinion will be to the Examiner's Answer mailed November 23, 2009.

cycle that can be placed in a low-power mode to minimize power consumption. Ans. 3-4 (citing Whitehurst, para. [0047], Figs. 3A-C and related paragraphs). For example, Whitehurst indicates that if “its power source is below a certain threshold, it may discontinue the normal ‘sleep-listen’ cycle and may completely deactivate the RF telemetry system.” Whitehurst, para. [0048]. Whitehurst thus completely deactivates the “RF telemetry system” in the implant when the battery runs low. The Examiner concludes that it would have been obvious to modify the IR interface in Meadows’s patient programmer to use Whitehurst’s RF communication protocol so that Meadows’s programmer would have “the same advantage of minimizing power consumption.” Ans. 4; *see also id.* 13.

b. Appellants’ Arguments

i. A Skilled Artisan Would Not Have Consulted Whitehurst for Teachings to Modify Meadows

Appellants argue that a skilled artisan would not have consulted Whitehurst for teachings regarding modification of Meadows’s IR interface. App. Br. 7. Appellants contend that Whitehurst relates to an implant (not an external programmer) and uses RF, not IR, communication hardware. *Id.* Appellants also contend that differences in the degree of control between internal devices like Whitehurst and external devices like Meadows result in different design criteria for limiting power consumption. *Id.* at 8. Appellants further argue that the Examiner improperly failed to supply a rationale for why a skilled artisan would consult Whitehurst to modify Meadows. *Id.*

The Examiner responds initially by noting that RF and IR communications systems are both well-known and interchangeable among skilled artisans. Ans. 11. We agree. The Examiner also provides a detailed

rationale, which we adopt as our own, for why a skilled artisan would use teachings from Whitehurst to modify Meadows's IR interface. Ans. 11-12. We further note that Appellants' Specification also recognizes the interchangeability of IR and RF communications technologies for the claimed IR interface as follows:

In some embodiments, infrared interface 38 may be alternatively realized by different types of communication devices, such as an RF communication device that communicates according to wireless communication technologies such as IEEE 802.11a, 802.11b, 802.11g, or Bluetooth. In this case, a similar listening period may be provided upon power-up to permit communication with a field programmer.

Spec., para. [0077]. For these reasons, we reject Appellants' argument that a skilled artisan would not have consulted Whitehurst for teachings to modify Meadows's IR interface.

ii. Modifying Meadows According to Whitehurst Fails to Meet All Limitations of Claim 1

Appellants argue that even if a skilled artisan were to incorporate teachings from Whitehurst to modify Meadows, the modified device would still fail to meet the requirement that the IR interface "is activated to seek an IR communication session for a finite period of time or deactivated after the finite period of time if the communication session is not established." App. Br. 9. Appellants contend that modifying Meadows using Whitehurst would merely alter the RF interface in Meadows, leaving the IR interface unchanged and still failing to satisfy the claim requirements referenced above. *Id.* We reject Appellants' argument because it mischaracterizes the Examiner's rejection by suggesting that the Examiner proposes bodily incorporating Whitehurst's RF interface into Meadows's programmer.

The Examiner expressly reasons and we agree that:

the combination is not made as a bodily incorporation of the two devices, but what the teachings of the one suggests to one of ordinary skill in the art in relation to the other. In this instance, the Whitehurst reference is combined with Meadows for the amply reiterated purpose of improving the efficiency and power conservation of the telemetry protocol.

Ans. 13. Thus, the Examiner does not propose to modify Meadows's RF interface. Rather, the Examiner determines that a skilled artisan would have found it obvious to improve Meadows's IR interface using the "sleep-listen" cycle used in Whitehurst's RF telemetry system to control power consumption. Ans. 4. Therefore, we reject Appellants' characterization of the Examiner's rejection as using Whitehurst's teachings to modify the RF interface of Meadows.

iii. Meadows and Whitehurst Fail to Describe Seeking a Communication Session "in response to power-up"

The Examiner concludes that claim 1 does not require that "activation to seek must occur instantly after the power-up." Ans. 13. Instead, "the seeking must merely occur sometime after power-up and not be able to occur before power-up." Ans. 14. Appellants argue: "The Examiner's interpretation of 'in response to power-up' was erroneous." First Reply Br. 8. Appellants contend that the Specification explains that the IR interface "is activated as a direct result of the power-up of the programmer, not any time after power-up as the Examiner asserts." First Reply Br. 8<sup>3</sup> (citing Spec. p. 6, ll. 12-17; p. 17, ll. 4-11). The cited portions of the Specification never explicitly state that activation of the IR interface occurs

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<sup>3</sup> All references to "First Reply Br." in this opinion will be to the Reply Brief dated June 1, 2009.

“in response to power-up.” Instead, the cited portions of the Specification indicate that activation occurs soon after power-up and likely without further user intervention. The Specification also indicates that “power-up” of the programmer may occur by “replacement of batteries or activation of an ‘on’ button.” Spec., para. [0090]. Consequently, the Examiner’s interpretation of claim 1 as not requiring that “activation to seek must occur instantly after the power-up” is consistent with the disclosure in the Specification.

The Federal Circuit recently reiterated the well-established principle that “it is not proper to import from the patent’s written description limitations that are not found in the claims themselves.” *Flo Healthcare Solutions, LLC v. Kappos*, 697 F.3d 1367, 1375 (Fed. Cir. 2012). We do not consider the plain language of claim 1 to be limited to the programmer described in the Specification. Therefore, we decline to import the narrower interpretation of claim 1 that Appellants proffer and we adopt the Examiner’s interpretation of “in response to power-up” as merely requiring that activation occur sometime after power-up and without user intervention.

The Examiner finds and we agree that Whitehurst describes an implant with an RF telemetry interface that uses a “sleep-listen cycle” to seek a communication session by alternately listening and sleeping for an external device. Ans. 3-4 (citing Whitehurst, Figs. 3A-C and paras. [0037-47]). Our review of Whitehurst reveals that the listening portion of the cycle is short, and the sleep portion is relatively long. Whitehurst, paras. [0036-40]. The cycle repeats itself indefinitely so long as Whitehurst’s implant has sufficient power available. *Id.* at paras. [0040-47]. If the power remaining in the implant battery drops below a threshold, then Whitehurst’s RF telemetry system is deactivated until battery power is restored. *Id.* at para.

[0048]. Thus, immediately upon having sufficient power available (i.e., upon “power-up”), Whitehurst periodically listens for a communication session and sleeps if no session is initiated. No user intervention is required for Whitehurst to initiate its sleep-listen cycle. We therefore reject Appellants’ argument that the combined teachings of Meadows and Whitehurst fail to meet the limitation of seeking a communication session “in response to power-up.”

iv. Meadows Fails to Describe the Claimed “finite period of time”

Appellants argue that Meadows describes an IR interface that seeks multiple communication sessions having finite periods rather than seeking such a session for the claimed “finite period of time” and deactivating the IR interface if time expires without establishing a session. App. Br. 15. Appellants implicitly argue that claim 1 is limited to devices that seek a communication session only one time after power-up as follows:

according to claim 1, an IR interface seeks a communication session for a limited period of time (i.e., a finite seeking period) and deactivates if the communication session is not established within that limited period of time, *rather than indefinitely seeking the communication session during the entire time the programmer is powered on.*

First Reply Br. 5 (emphasis added). We disagree that claim 1 is limited to a controller that seeks a communication session only one time after power-up. The plain language of claim 1, the absence of an express limitation excluding controllers that seek communication sessions multiple times after power-up and the use of “comprising” render the claim sufficiently open-ended to cover controllers that seek a communication session multiple times after power-up.

The Examiner relies upon Whitehurst as describing the “finite period of time.” Ans. 3-4. As explained above, we agree with the Examiner’s findings that Whitehurst describes a communication protocol that seeks a communication session (i.e., listens) for a “finite period of time” and deactivates the interface (i.e., sleeps) if no session is established. That Whitehurst listens periodically does not prevent its teachings from meeting the “finite period of time” limitation recited in claim 1.

For all the reasons expressed above, we affirm the Examiner’s rejection under 35 U.S.C. § 103(a) of claims 1, 3-5, 10, 18-21, and 32 as unpatentable over Meadows and Whitehurst.

## 2. Claim 2

Claim 2 recites in pertinent part, “wherein the finite time period time is approximately 5 to 10 seconds following power-up.” Appellants argue that neither Meadows nor Whitehurst describes a seek period that lasts 5 to 10 seconds. App. Br. 16-17. Because Whitehurst’s seek times range from 10 to 200 milliseconds and these time periods are so much shorter than the claimed 5-10 second period, Appellants contend that Whitehurst fails to describe or suggest the claimed time period. App. Br. 16. Appellants dismiss the Examiner’s reliance on the time-out period of 10 seconds described at paragraph 40 of Whitehurst as referring to a time-out period after which Whitehurst switches from a long sleep-listen cycle to a shorter sleep-listen cycle. App. Br. 17. Appellants also dismiss the Examiner’s finding that Meadows satisfies the limitation because a user of Meadows’s programmer could power off the device after only 8 seconds of use, which would render its IR interface active for the claimed time period. *Id.* Appellants contend that if the programmer were turned off after 8 seconds,

the deactivation of the IR interface would not be the result of a failed attempt to establish a communication session as required in the claim. *Id.*

The Examiner responds, finding that:

it would have been obvious to one having ordinary skill in the art at the time of the invention to use a range of 5-10 seconds in either scenario, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges (In re Aller, 105 USPQ 233) or optimum value of a result effective variable (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)) involves only routine skill in the art.

Ans. 15-16.

The cases that the Examiner cites are inapposite because they do not address the type of relationship between the prior art and the claims that is presented here. Namely, Appellant has demonstrated that the range for the claimed finite period of time at issue, 5 to 10 seconds, is far outside the range described by Whitehurst, 10 to 200 milliseconds. In such circumstances, the normal desire for a skilled artisan to optimize what is demonstrated as known in the prior art would be considerably less likely to result in optimizing on the claimed range. Without more specific guidance to optimize the claimed finite period of time to the claimed 5 to 10 seconds, we cannot sustain the Examiner's conclusion of obviousness. *Cf. In re Peterson*, 315 F.3d 1325, 1330 n.2 (Fed. Cir. 2003) (noting that prior art references that do not teach range of result effective variable that at least overlaps with claimed range are "less convincing"). Therefore, we reverse the Examiner's rejection of claim 2 as being unpatentable over Meadows and Whitehurst.

3. Claims 6-9

Appellants argue for reversing the rejection of claims 6-9 as a group based on limitations recited in claim 6. App. Br. 17-18. Claim 6 recites, in pertinent part: “further comprising a software loading port for loading the software into memory upon assembly of the programmer and a housing defining an aperture that provides access to the software loading port.” The Examiner finds that “an accessible software port is a common and well-known element in the art, such that it provides a clear manufacturing expedient and the end-user benefit of easily swapping memory or software media.” Ans. 17. To support this finding, the Examiner cites a “non-exhaustive list” of exemplary devices including:

memory cards (e.g. Compact Flash, SD or microSD) loaded through a bay or opening into mp3 players, digital cameras, digital photo frames or cell phones; SIM cards in GSM cell phones; CD-Rom, floppy disk or card reader drives on desktop and laptop computers; or even an old top-loading Nintendo or Atari system.

*Id.* We agree with the Examiner’s finding that the limitations recited in claim 6 are common knowledge to a skilled artisan. Therefore, we affirm the Examiner’s rejection of claims 6-9.

4. Claims 11, 12, 14, and 17

Claim 11 recites in pertinent part: “a first circuit board within a programmer housing, the first circuit board including telemetry circuitry, wherein the telemetry circuit is coupled to an antenna; and a second circuit board within the programmer housing, the second circuit board including a display and display circuitry.” Appellants argue for reversing the Examiner’s rejection of claims 11, 12, 14, and 17 because “the Examiner has not cited any prior art that discloses a programmer that includes telemetry

circuitry and display and display circuitry on separate circuit boards, as recited by claim 11.” App. Br. 19 (emphasis omitted).

The Examiner finds that the claimed arrangement of first and second circuit boards, antenna, and display “would be obvious as it can readily be found ... [in] any ‘clamshell’ style cell phone .... The antenna and telemetry circuitry is contained in the half of the phone held in the hand, while the display is contained on the portion that flips open.” Ans. 18. Thus, the Examiner takes official notice of facts within the grasp of skilled artisans to conclude that the limitations of claim 11 would have been well-known to a skilled artisan.

Appellants argue that the Examiner’s reliance on “common knowledge” is improper under *In re Ahlert*, 424 F.2d 1088 (C.C.P.A. 1970). More specifically, Appellants argue:

The assertions by the Examiner that “any ‘clamshell’ style cell phone” includes a display “in a portion that flips open” and an antenna “contained in the part containing the motherboard, keyboard, etc.” and that the “same is true of laptop computers” are not capable of instant and unquestionable demonstration as being well-known. Specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art, which the Examiner has failed to provide.

Second Reply Br. 6 (citing *Ahlert*, 424 F.2d at 1091).<sup>4</sup>

*Ahlert* held that “Patent Office appellate tribunals, where it is found necessary, may take notice of facts beyond the record which, while not generally notorious, are capable of such instant and unquestionable demonstration as to defy dispute.” *Ahlert*, 424 F.2d at 1091. The Examiner

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<sup>4</sup> All references to “Second Reply Br.” in this opinion will be to the Supplemental Reply Brief dated November 23, 2009.

in the present appeal does not merely state that the limitation at issue was well known in the art, but suggests various devices which likely embodied the limitation in the prior art. The examples provided by the Examiner indicate that, with the further expenditure of public resources, the Examiner would instantly and unquestionably demonstrate that the limitation was well known as of Appellants' filing date. Although Appellants baldly deny the Examiner's finding, they provide no persuasive evidence or argument to explain how the Examiner may have erred. In the context of this particular rejection, Appellants' bald denial of the Examiner's finding alone is not persuasive of error. We adopt the Examiner's findings as our own and conclude that they provide a sound basis under *Ahlert* for rejecting claim 11. Appellants identify no separate basis for reversing the rejection of dependent claims 12, 14, and 17. Therefore, we affirm the Examiner's rejection of claims 11, 12, 14, and 17.

#### 5. Claim 15

Claim 15 depends on claim 14, which depends on claim 11. Claim 14 is not argued separately from claim 11, and Appellants only contest the Examiner's findings that the limitations recited solely in claim 15 are an obvious "matter of design choice." App. Br. 20-21. Claim 15 recites, in pertinent part: "the internal antenna defines an aperture, the programmer further comprising a battery bay extending at least partially into the aperture." The Examiner concludes that:

[i]t would have been an obvious matter of design choice . . . to modify the system as taught by Meadows et al. by extending the battery bay into the antenna aperture, because [Appellants have] not disclosed that such a positioning provides an advantage, is used for a particular purpose, or solves a stated problem.

Ans. 8.

Appellants argue:

[I]t appears that the Examiner has overlooked page 23, lines 8-11 of Appellant's disclosure, which states positioning of a battery bay to extend at least partially into an aperture defined by the internal antenna can reduce external magnetic interference to the internal antenna by providing an RF load to the internal antenna, enhancing noise immunity. The Examiner has not cited any references that teach or suggest the programmer recited in Appellant's claim 15. The reliance on "design choice" without further support found within a prior art reference is improper, and the rejection of claim 15 should be withdrawn.

App. Br. 21. We agree and therefore reverse the Examiner's rejection of claim 15.

*Obviousness of claim 16 over Meadows, Whitehurst, and Stanton*

Claim 16 depends from claim 11 and recites, in pertinent part, "further comprising an external antenna coupled to the telemetry circuitry via a cable." Appellants identify no separate basis for reversing the Examiner's rejection of claim 16 except the reasons proffered for reversing the rejection of claim 11. For the reasons expressed above, we affirm the rejection of claim 11. Therefore, we also affirm the Examiner's rejection of claim 16.

DECISION

For the reasons stated above, we:

1. AFFIRM the Examiner's rejection of claims 1, 3-12, 14, 17-21, and 32 under 35 U.S.C. § 103(a) as being unpatentable over Meadows and Whitehurst;

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2. REVERSE the Examiner's rejection of claims 2 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Meadows and Whitehurst;  
and
3. AFFIRM the Examiner's rejection of claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Meadows, Whitehurst, and Stanton.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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